

No. 1

Gang Fu, Ruien Yu, Xiaolin Yu, Xiaohan Li, Xiaowen Chen, Xiaoyan Zhang, Yanfei Kou, Xijing Zhu, Numerical simulation on the processing of crumb rubber-modified asphalt by ultrasound and mechanical stirring	1
Nabil Boucherit, Salah Hanini, Abdellah Ibrir, Maamar Laidi, Mohamed Roubehie Fissa, Prediction of doxycycline removal by photo-Fenton process using an artificial neural network - multilayer perceptron model	13
Sureshkumar Petchimuthu, Sathiya Moorthy Rajendran, Experimental study of solar air heater with C-shaped ribs coated with zeolite	23
Tomás Pessoa Londe Camargos, Andréa Oliveira Souza Da Costa, Esly Ferreira Costa Junior, Energy and exergy diagnostics of an industrial annular shaft limekiln working with producer gas as renewable biofuel	33
Jasmina Vitas, Aleksandar Jokić, Nataša Lukić, Stefan Vukmanović, Radomir Malbaša, Mathematical modeling as a tool in kombucha beverages' bioactive quality control	51
Cemre Avşar, Suna Ertunç, Reaction parameter optimization of ammonium sulfate production from phosphogypsum	61

Berenice Clifton-García, Juan Villafaña-Rojas, Orfil González-Reynoso, Jorge Ramon Robledo-Ortiz, Ricardo Manríquez-González, Porfirio Gutiérrez-González, Yolanda González-García, Use of an internal loop airlift bioreactor to produce polyhydroxyalkanoates by <i>Stenotrophomonas rhizophila</i>	71
Mostafa Hassanein Hussein Mohamed, Simultaneous multi-objective framework of natural gas pipeline network operations	83

No. 2

Imene Ghezal, Ali Moussa, Imed Ben Marzoug, Ahmida El-Achari, Christine Campagne, Faouzi Sakli, Development of a breathable polymeric membrane and process optimization by using a general full factorial design	95
Ayuni Yustira, Hafifuddin Arif, Zahedi, Fachrur Razi, Influence of activators on spent coffee grounds as biosorbent for chromium	105
Çetin Kadakal, Bilge Akdeniz, Ayten Ekinci, Luziana Hoxha, Pınar Şengün, The relationship between ergosterol and <i>Alternaria</i> mycotoxins in tomatoes with different surface decayed proportions	113

Venugopal Palaniswamy, Anusha Peyyala, Prabhu Paramasivam, Itha Veeranjaneyulu, Performance analysis of electrochemical micromachining using saw, critic and ann methods	123
Julija Volmajer Valh, Matejka Turel, Andrej Holobar, Marjana Simonič, Biodegradation of protective masks (COVID-19) in compost and aqueous media	131
Maha Abdelileh, Manel Ben Ticha, Nizar Meksi, Hatem Dhaouadi, An environmentally friendly indigo dyeing process using iron (ii) gluconate as a reducing agent	139
Nagarajan Gnanavel, Sundar Raj Mariadoss, Venkatesan Jayavelu, Venkata Mohan Reddy Polaka, Muthucumaraswamy Rajamanickam, Chemical process effects on sloped surface with changing mass and consistent temperature	151
Jacqueline Arnautovic Nascimento, Paulo Roberto Britto Guimarães, Regina Ferreira Vianna, Optimization of vinyl-monochloride recovery process for reducing costs and environmental impact	163

No. 3

Karthikeyan Subramanian, Sathyagnanam Amudhavalli Paramasivam, Damodaran Dillikannan, Machine learning predictions on the output parameters of common rail direct injection engines fueled with ternary blend	173
Mahboubeh Asal, Abolfazl Davodioknabadi, Mohammad Mirjalili, Ali Nazari, Influence of texture and nanomaterials on the produced natural fiber characteristics	185
Masanori Yoshida, Toshiki Kosaka, Yoshiaki Mukai, Koichi Nakahara, Reno Kiyota, Gas-liquid dispersion agitated by closed turbine type impeller	193
Marko Pavlović, Marina Dojčinović, Jasmina Nikolić, Anja Terzić, Vladimir Pavićević, Saša Drmanić, Enita Kurtanović, Application of waste raw materials as a reinforcement for protective coatings based on pyrophyllite	199
Nebojša Vasiljević, Vladan Mićić, Mitar Perušić, Marija Mitrović, Duško Kostić, Optimization of ultrasound-assisted extraction of (poly)phenolic compounds from blueberry (<i>Vaccinium myrtillus</i>) leaves	207
Piyanun Ruangurai, Nattabut Tanasansurapong, Sirakupt Prasitsanha, Rewat Bunchan, Wiput Tuvayanond, Thana Chotchuangchutchaval, Chaiyaporn Silawatchananai, Utilizing machine vision and artificial neural networks for dried grape sorting during production	219

Junhee Han, Hyojung Kim, Dohyung Lee, **Suppressing pre-hydrolysis in TiO₂ manufacturing: Design optimization of an indirect heating hydrolysis system** 229

Dario Balaban, Jelena Lubura, Predrag Kojić, **Integrated neural network and Aspen plus model for entrained flow gasification kinetics investigation** 239

No. 4

Vinicyus Rodolfo Wiggers, Robson Gil de Souza Ramos, Gabriel Henrique Wienhage, Tuanne Gomes Porto, António André Chivanga Barros, Luana Marcele Chiarello, **Soybean oil pyrolysis in a continuous bench-scale reactor for light olefins production** 249

Kalyani Palanichamy, Banuprabha Thakku Rangachari, Sridhar Jayavel, Aravind Dhandapani, Varagunapandiyan Natarajan, **Advancements in phytomass-derived activated carbon for applications in energy storage systems** 257

Periasamy Manikandan Srinivasan, Nesakumar Dharmakkann, **Experimental studies in plate heat exchanger using therminol-55 /Al₂O₃ & glycerol/ Al₂O₃ nanofluids** 277

Azza Mohamed Khalifa, Nadia Ali Elsayed, Mostafa Awad, **Comparative analysis of water network minimization in industrial processes: Regeneration vs. non-regeneration methods** 285

Milena Žuža Praštalo, Nikola Milašinović, Marko Jonović, Melina Kalagasidis-Krušić, Zorica Knežević-Jugović, **Alcalase immobilization onto chitosan/glutaraldehyde/tripolyphosphate beads obtained by inverse emulsion technique** 295

Chao Lv, Yanlong Liu, Zhang Lu Lu, **Forecasting research of mixing uniformity of cerium chloride solution under microwave heating** 305

Behrooz Sedighi, Abolfazl Davodioknabadi, Mohammad Shahvaziyan, Mohammadali Shirgholami, **The influence of vibration velocity on the nano composite of halloysite clay nanotubes** 315

Dušica P. Ilić, Dragan Z. Troter, Jelena S. Stanojević, Dragan J. Cvetković, Ivan S. Ristić, **Intensified microwave-assisted hydrodistillation produces trans-anethole-rich fennel (*Foeniculum vulgare* mill.) fruit essential oil** 325

Contents: Vol. 31, Issues 1–4, 2025 335

Author Index, Vol. 31, 2025 337